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09/909,486	07/20/2001	Fred N. Desai	8642	2573

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EXAMINER

CHEVALIER, ALICIA ANN

ART UNIT PAPER NUMBER

1772

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/909,486  
Filing Date: July 20, 2001  
Appellant(s): DESAI ET AL.

Eric T. Addington  
For Appellant

**EXAMINER'S ANSWER**

**MAILED**  
**DEC 13 2004**  
**GROUP 1700**

This is in response to the appeal brief filed October 27, 2004.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct. However, the Examiner disagrees with Appellant that the unentered amendment, in the after final amendment filed August 4, 2004, would not require additional search and/or more than a cursory review by the office.

**(5) *Summary of Claimed Subject Matter***

The summary of claimed subject matter contained in the brief is correct.

**(6) *Grounds of Rejection to be Reviewed on Appeal***

The appellant's statement of the grounds of rejection is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

The following is a listing of the evidence (e.g., patents, publications, Official Notice, and admitted prior art) relied upon in the rejection of claims under appeal.

6,452,063	CURRO et al.	09-2002
5,873,868	NAKAHATA	02-1999
5,628,097	BENSON et al.	05-1997
4,588,630	SHIMALLA	05-1986

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

1. Claims 1, 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahata (U.S. Patent No. 5,873,868) in view of Curro et al. (U.S. Patent No. 6,452,063).

Nakahata discloses a disposable absorbent article such as diapers, feminine hygiene garments, wipes, etc. (*col. 3, lines 6-12*).

Regarding Applicant's claim 1, Nakahata discloses a nonwoven web (*col. 5, lines 39-54*) comprising a plurality of apertures (*col. 6, lines 33-34*) each having a hole size greater than 2 mm<sup>2</sup> (*col. 12, lines 18-20*). Figure 4 in Nakahata shows the web having an open area greater

Art Unit: 1772

than 15%. Nakahata further discloses that the topsheet has an elastic extensibility of from about 10% to about 500% in the cross machine direction, which reads on Applicant's limitation being capable of at least 70% extension in the cross machine direction at a loading of 10 g/cm (*claim 8 and col. 10, lines 17-34*).

Nakahata fails to disclose that the apertures have a hole aspect ratio of less than 6.

Curro also discloses a disposable absorbent article such as diapers, feminine hygiene garments, wipes, etc. (*col. 1, lines 15-20*).

Curro teaches an apertured topsheet with an aspect ratio between 1.5:1 and 5:1 (*col. 11, lines 10-13*). An aperture with one of these aspect ratios is provided with the benefit of retaining more open area when the web is extended in a direction generally orthogonal to the major axis of the aperture (*col. 11, lines 3-25*).

Nakahata and Curro are analogous because they both disclose disposable absorbent article such as diapers, feminine hygiene garments, wipes, etc.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use an aspect ratio of less than 6 in Nakahata as taught by Curro in order to provide the benefit of retaining more open area when the web is extended. One of ordinary skill in the art would have been motivated to use the aspect ratios taught by Curro because of the benefit of retaining more open area when the web is extended (*Curro col. 11, lines 3-25*). It is desirable to have more open area on the web when it is extended so that fluid flow is not impeded.

Regarding Applicant's claim 4, Nakahata discloses that the nonwoven web is a web of meltblown fibers (*col. 5, lines 39-54*).

Regarding Applicant's claim 6, Nakahata discloses the nonwoven web is a topsheet on a disposable absorbent article (*col. 3, lines 13-31*).

2. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahata (U.S. Patent No. 5,873,868) in view of Shimalla (U.S. Patent No. 4,588,630).

Nakahata discloses a disposable absorbent article such as diapers, feminine hygiene garments, wipes, etc. (*col. 3, lines 6-12*).

Regarding Applicant's claims 7 and 9, Nakahata discloses a nonwoven web (*col. 5, lines 39-54*) comprising a plurality of apertures (*col. 6, lines 33-34*). Nakahata further discloses that the topsheet has an elastic extensibility of from about 10% to about 500% in the cross machine direction, which reads on Applicant's limitation being capable of at least 70% extension in the cross machine direction at a loading of 10 g/cm (*claim 8 and col. 10, lines 17-34*).

Nakahata fails to disclose that the apertures coincident with a plurality of weakened, melt-stabilized locations and a portion of the circumferential edge of the aperture is defined by a remnant of the melt-stabilized location.

Shimalla discloses a disposable wipes (*col. 6, lines 28-29*).

Shimalla teaches a nonwoven web comprising a plurality of apertures with circumferential edges, a portion of the circumferential edge being defined by a melt-stabilized location (*col. 2, line 37 bridging col. 3, line 30*). The nonwoven fibrous web has a basis weight of about 0.8 to about 4 ounces per square yard (*col. 3, line 63 bridging col. 4, line 4*), which reads on Applicant's claimed range of between 15 and 60 gram per square meter this is equivalent to 0.5 to 2.1 ounces per square yard. The nonwoven web has increased tensile strength (*col. 2, lines 37-53*).

Nakahata and Shimalla are analogous because they both disclose disposable absorbent article wipes, etc.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the material and melt-stabilized holes of Shimalla as the material and holes of Nakahata in order to increase tensile strength of Shimalla. One of ordinary skill in the art would have been motivated to use melt-stabilized holes because it increases the tensile strength of the web (*Shimalla col. 2, lines 37-53*). It is desirable to have increased tensile strength around the apertures because it will help prevent tearing when the web is stretched.

Regarding Applicant's claim 8, Nakahata discloses an average aperture size greater than  $2 \text{ mm}^2$  (*col. 12, lines 18-20*). Figure 4 in Nakahata appears to teach the web having an open area greater than 15%.

Regarding claim 10, Nakahata discloses the nonwoven web is a topsheet on a disposable absorbent article (*col. 3, lines 13-31*).

3. Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahata (U.S. Patent No. 5,873,868) in view of Shimalla (U.S. Patent No. 4,588,630) as applied above, and further in view of Curro et al. (U.S. Patent No. 6,452,063).

Nakahata and Shimalla are relied upon as described above.

Nakahata and Shimalla fail to disclose that the apertures have a hole aspect ratio of less than 6.

Curro also discloses a disposable absorbent article such as diapers, feminine hygiene garments, wipes, etc. (*col. 1, lines 15-20*).

Curro teaches an apertured topsheet with an aspect ratio between 1.5:1 and 5:1 (*col. 11, lines 10-13*), which reads on Applicant's claim less than 6. An aperture with one of these aspect ratios is provided with the benefit of retaining more open area when the web is extended in a direction generally orthogonal to the major axis of the aperture (*col. 11, lines 3-25*).

Nakahata, Shimalla and Curro are analogous because they all disclose disposable absorbent article such as diapers, feminine hygiene garments, wipes, etc.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use an aspect ratio of less than 6 in the combination of Nakahata and Shimalla as taught by Curro in order to provide the benefit of retaining more open area when the web is extended. One of ordinary skill in the art would have been motivated to use the aspect ratios taught by Curro because of the benefit of retaining more open area when the web is extended (*Curro col. 11, lines 3-25*). It is desirable to have more open area on the web when it is extended so that fluid flow is not impeded.

Regarding Applicant's claims 2 and 3, Shimalla discloses the nonwoven fibrous web has a basis weight of about 0.8 to about 4 ounces per square yard (*col. 3, line 63 bridging col. 4, line 4*), which reads on Applicant's claimed range of between 15 and 70 gram per square meter this is equivalent to 0.5 to 2.4 ounces per square yard and 40 and 50 gram per square meter this is equivalent to 1.4 to 1.8 ounces per square yard.

Regarding Applicant's claim 4, Nakahata discloses that the nonwoven web is a web of meltblown fibers (*col. 5, lines 39-54*).

Regarding Applicant's claim 6, Nakahata discloses the nonwoven web is a topsheet on a disposable absorbent article (*col. 3, lines 13-31*).



4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakahata (U.S. Patent No. 5,873,868) in view of Curro et al. (U.S. Patent No. 6,452,063) as applied above, and further in view of Benson et al. (U.S. Patent No. 5,628,097).

Nakahata and Curro are relied upon as described above.

Nakahata and Curro fail to disclose the meltblown fibers includes meltblown microfibers.

Benson teaches a nonwoven web, used as a diaper topsheet (*col. 1, lines 13-20*), comprising meltblown microfibers (*col. 2, lines 60-62*), which provides a skin friendly surface, i.e. soft feel (*col. 1, lines 28-45*).

Nakahata, Shimalla and Benson are analogous because they all disclose disposable absorbent article such as diapers, feminine hygiene garments, wipes, etc.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use meltblown microfibers as the meltblown fibers in Nakahata as taught by Benson in order to provide a skin friendly surface. One of ordinary skill in the art would have been motivated to use meltblown microfibers because of the soft feel of the topsheet. It is desirable to have a skin friendly surface in order not to cause skin irritation to the user.

**(10) Response to Argument**

5. Appellant's arguments appeal brief filed October 27, 2004 regarding the Nakahata (US Patent No. 5,873,868) in view of Curro et al. (US Patent No. 6,452,063) of record have been carefully considered but are deemed unpersuasive.

Appellant argues that Nakahata fails to teach the limitation of an open area greater than 15% and that the Examiner can not rely on the drawings in view of *Hockerson-Halberstadt, Inc.*

*v. Avia Group Int'l*, 222 F.3d 951, 956 (Fed Cir. 2000). Appellant specifically asserts that the “patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue.”

First, Appellant’s limitation of an open area greater than 15% is not a *precise* proportion. It is a broad range of open area percentage, i.e. 15-100%. Second, according to MPEP 2125, the drawings and pictures can anticipate claims if they clearly show the structure which is claimed. However, the picture must show all the claimed structural features and how they are put together. The origin of the drawing is immaterial. For instance, drawings in a design patent can anticipate or make obvious the claimed invention as can drawings in utility patents. When the reference is a utility patent, it does not matter that the feature shown is unintended or unexplained in the specification. The drawings must be evaluated for what they reasonably disclose and suggest to one of ordinary skill in the art. In the instant case figure 4 in Nakahata clearly shows that the web has an open area greater than 15%.

Appellant also argues that Nakahata fails to teach or suggest a nonwoven web capable of at least 70% extension at a loading of 10 g/cm. Specifically, Appellant states that the limitation “at a loading of 10 g/cm” has been read out of Claim 1 throughout the prosecution and that the office provides no reasoning as to why the topsheet of Nakahata is “deemed” to have at least 70% extension at a loading of 10 g/cm.

First, as stated in the final office action mailed May 27, 2004, claim 1 recites “a nonwoven web ... *being capable of* at least 70% extension in the cross machine direction at a loading of 10 g/cm.” It has been held that the recitation that an element is “capable of” performing a function is not a positive limitation but only requires the ability to so perform.

Art Unit: 1772

Second, as stated in the final office action, the reason why Nakahata is “deemed” to *be capable of* at least 70% extension at a loading of 10 g/cm is that Nakahata discloses that the topsheet has an elastic extensibility of from about 10% to about 500% in the cross machine direction by a tensile force (*claim 8 and col. 10, lines 17-53 and col. 13, lines 7-20*). Therefore, it is deemed to have the “ability to” have at least 70% extension in the cross machine direction at a loading of 10 g/cm. It is further noted that Nakahata discloses that the nonwoven web is made of synthetic fibers such as polypropylene (*Nakahata col. 5, lines 45-46*), which is the same material Appellant discloses for their nonwoven web (*Specification page 8, line 20*).

Furthermore, Appellant has not provided any evidence that Nakahata is not capable of at least 70% extension in the cross machine direction at a loading of 10 g/cm.

Appellant argues that the office has engaged in impermissible hindsight in the combination of Nakahata and Curro.

It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the Appellant's disclosure, such a reconstruction is proper. In the instant case, Nakahata and Curro are analogous because they both disclose disposable absorbent article such as diapers, feminine hygiene garments, wipes, etc. Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use an aspect ratio of less than 6 in Nakahata as taught by Curro in order to provide the benefit of retaining more open area when the web is extended. One of ordinary skill in the

Art Unit: 1772

art would have been motivated to use the aspect ratios taught by Curro because of the benefit of retaining more open area when the web is extended (*Curro col. 11, lines 3-25*).

Appellant argues that the proposed modification of the combination of Nakahata and Curro render the reference unsatisfactory. Appellant specifically argues that the combining Curro's three-dimensional apertured elastomeric topsheet with Nakahata's topsheet with slits would render the prior art invention unsatisfactory for its intended purpose.

The way in which Appellant combining the references is not the way the Examiner is intending them to be employed. The Examiner is not suggesting to replace Nakahata slits with Curro's three-dimensional apertures. Rather, one of ordinary skill in the art would recognize from that recited aperture/hole aspect ratios in Curro provide the benefit of retaining more open area when the web is extended (*Curro col. 11, lines 3-25*). Therefore, even though Nakahata is silent about the aspect ratio of their slits/hole one of ordinary skill in the art would recognize the benefits of having a hole aspect ratio less than 6 from the teachings of Curro.

6. Appellant's arguments in the response filed March 12, 2004 regarding the 35 U.S.C. §103 rejection over Nakahata in view of Shimalla of record have been carefully considered but are deemed unpersuasive.

Appellant argues that the proposed modification of the combination of Nakahata and Shimalla because it would render Nakahata unsatisfactory for its intended purpose

Again, the way in which Appellant combining the references is not the way the Examiner is intending them to be employed. The Examiner is not suggesting to replace Nakahata slits with Shimalla's apertures. Rather, that one of ordinary skill in the art would recognize the benefit of having melt-stabilized apertures as taught by Shimalla (*Shimalla col. 2, line 37 bridging col. 3,*

line 30), i.e. they increase tensile strength of nonwoven webs (*Shimalla col. 2, lines 37-53*).

Therefore, one of ordinary skill in the art would have been motivated to use melt-stabilized holes/slits because it increases the tensile strength of the web (*Shimalla col. 2, lines 37-53*). It is desirable to have increased tensile strength around the apertures because it will help prevent tearing when the web is stretched.

Appellant's arguments regarding Nakahata failing to teach or suggest the limitations "said nonwoven web ... being capable of at least 70% extension at a loading of 10 g/cm" and "said nonwoven web comprising open area greater than 15%" have already been addressed above.

7. Appellant's arguments in the response filed March 12, 2004 regarding the 35 U.S.C. §103 rejection over Nakahata in view of Shimalla and further in view of Curro of record have been carefully considered but are deemed unpersuasive.

Appellant's arguments regarding the supposed deficiencies of the Nakahata, Shimalla and Curro references have already been addressed above.

8. Appellant's arguments in the response filed March 12, 2004 regarding the 35 U.S.C. §103 rejection over Nakahata in view of Curro and further in view of Benson of record have been carefully considered but are deemed unpersuasive.

Appellant argues that claim 5, ultimately dependent upon claim 1, stands or falls with the arguments presented in section I of the Appeal Brief. These arguments have already been addressed above.

Art Unit: 1772

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,




Alicia Chevalier  
December 9, 2004



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Conferees

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